

MULTI-SEGMENT CONE-BEAM RECONSTRUCTION SYSTEM AND METHOD
FOR TOMOSYNTHESIS IMAGING

5 **ABSTRACT**

 A tomosynthesis method for creating a three-dimensional reconstruction of a
target element volume acquires radiation absorbance images of the target element
volume through a limited plurality of positions. The target element volume is divided
into a plurality of volume segments and a reconstruction algorithm is applied to each
10 segment to generate a three-dimensional reconstruction of each volume segment. The
three-dimensional reconstruction of each volume segment is then merged to create a
three-dimensional reconstruction of the target volume. A tomosynthesis system and a
computer program product for carrying out tomosynthesis are also provided.